

AN - 1983-804572 [44]

TI - Button-type air cell - in which air supply hole is sealed with adhesive layer of less than 20 micron thickness NoAbstract Dwg 1/3
DC - L03 X16

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NP - 1

NC - 1

PN - JP58161273 A 19830924 DW1983-44 7p *

PR - 1982JP-0044295 19820318

IC - H01M-012/06

401/554 PLUSPAT(C) QUESTEL-ORBIT- image

CPIM (C) JPO

PN - JP58161273 A 19830924 [JP58161273]

TI - (A) BUTTON TYPE ZINC AIR CELL

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AP - JP4429582 19820318 [1982JP-0044295]

PR - JP4429582 19820318 [1982JP-0044295]

IC - (A) H01M-012/06

EC - H01M-012/06

DT - Basic

STG - (A) Doc. Laid open to publ. Inspec.

AB - PURPOSE: To decrease gas penetration from an adhesive layer and residue of an adhesive when a sealant is removed by selecting a sealant, which seals an air supply holes of a battery case, having a specified thickness of adhesive layer and a specified peeling-off strength.

- CONSTITUTION: A button type zinc air cell is formed with a positive case 1, air holes 2, a sealing plate 3, a sealing ring 4, a positive catalyst layer 5, a positive water repellent film 6, a negative zinc 7, a separator 8, an air diffusion paper 9, and a sealant 10. The sealant 10 is specified so that the thickness of an adhesive layer is 20.mu.m or less and the peeling-off strength is 100-300g/cm². By specifying the thickness of the adhesive layer, gas penetration from the adhesive layer is decreased to increase storage life of a cell, and by specifying the peeling-off strength of a sealant, the residue of an adhesive in a battery case, when a sealant is removed, is prevented.

- COPYRIGHT: (C)1983,JPO&Japio

JA 83 TR. 161273 Japanese Unexamined Patent Application, 58-161273, September 24, 1983

Title: Button Type Air Cell

Application: March 18, 1982 Sr: 57-44295

Inventors: N. Koshiba et al

Applicant: Matsushita Electric Industrial Co.

It relates to a sealing material for use with air cells.

A button type air cell such as shown in Fig. 1 has air holes (2), which are sealed when not in use with a covering material such as polyester using an adhesive. However, the inventors found that adhesion and thickness of the adhesive layer (10-1) strongly influence the sealing of the air electrode. Commonly, thickness of 40-100 μ m for adhesive with adhesion of 400 g/cm are used. However, when the thickness increases beyond 40-100 μ m, gas starts to permeates, lowering shelf life. Also when the adhesion is excessively strong, it leaves a residue on the air holes, particularly when stored at high temp.

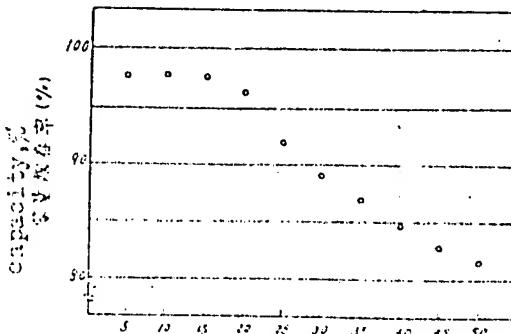
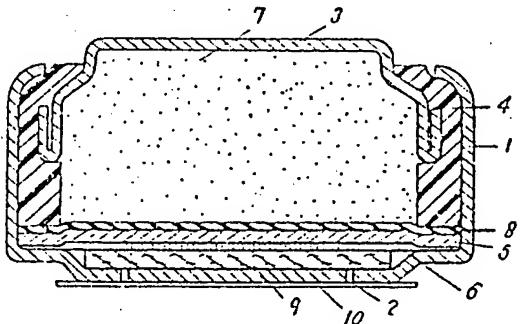
In this invention, a sealing material has adhesive of thickness less than 20 μ m and adhesion of 100-300 g/cm.

Claim: Button type air cell, in which sealing material covers air holes with an adhesion layer of less than 20 μ m thickness and adhesion of 100-300 g/cm.

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